

UNION OIL CO.

IBLA 76-63 Decided December 29, 1978

Appeal from decision of Oregon State Office, Bureau of Land Management, dismissing protest against rejection of three competitive geothermal lease bids which were deemed inadequate. OR 14336, OR 14337, OR 14338.

Affirmed.

1. Act of December 24, 1970—Geothermal Leases: Generally —Geothermal Leases: Competitive Leases—Geothermal Leases: Discretion to Lease

Secretary of Interior has authority under Geothermal Steam Act, 30 U.S.C. §§ 1002-03 (1976), and implementing regulations, 43 CFR 3220.6(c), to reject bids submitted at competitive geothermal lease sales when such bids are deemed to be inadequate in dollar amount.

2. Act of December 24, 1970—Geothermal Leases: Competitive Leases — Geothermal Leases: Discretion to Lease — Rules of Practice: Appeals: Burden of Proof

On appeal from a determination of United States Geological Survey under 30 U.S.C. §§ 1002-03 (1976), rejecting offeror's competitive geothermal lease bid as too low, offeror has the burden of showing that the rejection is arbitrary and capricious and that Survey has no rational basis for rejection of the bid.

3. Act of December 24, 1970—Geothermal Leases: Competitive Leases—Geothermal Leases: Discretion to Lease—Geothermal Leases: Hearings—Hearings

While the Department has discretion as to whether to grant a hearing to an offeror whose high bid is rejected for a competitive geothermal lease, a hearing is not in the public interest where offeror has not explained a procedure in which particular facts could be effectively utilized in an alternative formula for computing minimum bids.

APPEARANCES: George D. Bennett, Esq., Los Angeles, California, for appellant; Robert D. Conover, Esq., Riverside, California, and Robert H. Memovich, Esq., Portland, Oregon, for Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE GOSS

Union Oil Company of California has appealed from a decision of the Oregon State Office, Bureau of Land Management (BLM), dismissing Union's protest against rejection of three competitive geothermal lease bids filed by Union pursuant to the Geothermal Steam Act of December 24, 1970, 30 U.S.C. § 1001 *et seq.* (1976), and the geothermal resources leasing regulations, 43 CFR Group 3200. Union requests a hearing.

In the BLM notice of competitive geothermal lease sale for tracts within the Borax Lake Hot Springs area of the previously established Alvord Known Geothermal Resources Area (KGRA), Oregon, the notice stated that "[t]he government reserves the right to reject any and all bids." *See* 43 CFR 3220.6(c). At the sale held in May 1975, Union was the highest bidder for Leasing Units 35 (OR 14336), 40 (OR 14337), and 41 (OR 14338); however, the U.S. Geological Survey (USGS), recommended the Union bids not be accepted because they were insufficient in dollar amount. ^{1/} The USGS decision was based upon its presale and post-sale evaluations of the lands. BLM notified Union of the rejections and tendered back Union's remittance, noting that the tracts would be reoffered in the future. Union asked reconsideration, and the State Office dismissed Union's protest. This appeal ensued, and various affidavits and arguments were received through April 17, 1978.

^{1/} Union's per acre bids for Tracts 35, 40, and 41 were \$29.50, \$22.50, and \$16.02, respectively. The minimum value per acre recommended by USGS for the same tracts was \$118, \$42, and \$98. Five companies submitted bids in each of the three instances.

Union advances two contentions. First, it argues that the Department contradicted the Geothermal Steam Act in rejecting its high bids on the pertinent tracts after offering them in a competitive bidding sale. Second, Union alleges that the decision to reject was arbitrary and capricious, because the geological data and the evaluation process employed were inadequate.

[1, 2] In Getty Oil Co., 27 IBLA 269, 271-74 (1976), which involved facts similar to those presented here, the Board held that the Secretary of the Interior has authority under the Geothermal Steam Act, 30 U.S.C. §§ 1002-03 (1976), and the geothermal leasing regulations, 43 CFR 3220.6(c), 2/ to reject bids submitted at competitive geothermal lease sales when such bids are deemed to be inadequate in dollar amount. While the authority to reject bids is clear, the Department's actions must not be arbitrary or capricious, and must be founded upon a rational basis. Getty Oil Co., supra at 273. See Burglin v. Morton, 527 F.2d 486, 489 (9th Cir. 1975), cert. denied, 425 U.S. 973 (1976).

The burden of proving an abuse of discretion in determining minimum acceptable bids is upon the offeror asserting such an abuse. Appellant seeks to have its bids accepted, the bids being \$41,011.20, \$55,008, and \$53,975.56, respectively. As a step toward sustaining its burden, appellant could have attempted to make a prima facie showing of fair market value by explaining in some detail how the bids submitted were computed. A different valuation formula could have been proposed as an alternative to that used by USGS. Instead, appellant states that with the limited verifiable evidence available, it is impossible to make a credible evaluation:

In the absence of reasonable data and the uncertainties inherent in geothermal exploration, it is capricious to apply a sophisticated evaluation program without the prerequisite data necessary for it to function with any credibility. An economic analysis is a way of expressing with a common denominator (dollars) the overall assessment of what, in this case, are geological questions. But if the prerequisite supporting geological data is not

2/ Section 3220.6(c) provides:

"The right to reject any and all bids is reserved. If the authorized officer fails to accept the highest bid for a lease within 30 days after the date on which the bids are opened (or such longer period as may be needed to comply with § 3230.1-6 of this chapter), all bids for that lease will be considered rejected."

In effect, Union alleges BLM was arbitrary and capricious in not accepting its bid during the period when it was possible to do so.

available, or not favorable, then processing that information vacuum through a computer does not impart credibility or value to the results.

Affidavit of Neil J. Stefanides, Manager of Exploration, Geothermal Division, Union Oil Company, March 15, 1978, at 16.

The basic argument which appellant makes is that the nature of geothermal resources, particularly those involved herein, a liquid dominated system, involves risks and uncertainties so great as to make any bonus bid in excess of its value. It states that its own bid was arrived at by estimating a level at which it thought it would be competitive with other interested bidders; and appellant does not show the relationship of the bids submitted to its estimation of the value of the resources being bid upon.

Moreover, it is clear that appellant does place considerable value on the subject tracts. Appellant contends that it will be necessary to drill at least a half dozen or more successful wells in order to determine whether or not the resource has any commercial value. Affidavit of Richard C. Lindwall, dated November 4, 1975. If we accept the XPLORE figure of \$600,000 to indicate the cost of drilling one such well, the total development cost prior to a determination of commercial producibility is \$3,600,000 even without considering other exploration costs enumerated in appellant's submissions. That appellant was willing to bid at all when faced with the realistic likelihood of such considerable expenditures undermines its assertion that there could be no value for bonus bidding purposes.

The minimum bids established by BLM were those recommended by a USGS Lease Sale Evaluation Committee. In its May 20, 1975, report to the Regional Conservation Manager, the Committee specified the data it had found regarding the Alvord KGRA, outlined the computer analysis performed, suggested additional economic factors, and gave bid recommendations on several leasing tracts, including the three in issue here. As one of the tools utilized for evaluating the fair market value of the lease, the Committee used the GUESS (General Uncertainty Economic Simulation System) Model C Computer program.

In a September 15, 1975, memo to the Riverside Solicitor's Office on procedures used by the Evaluation Committee, the USGS indicated that the data programmed into the Model C had been derived from "[m]embers of the Evaluation Committee providing their estimates of the various input parameters for the program." The criteria and parameters used in the report were detailed. Based upon 400 separate Monte Carlo data distribution trials per computer run, in which each computer pass "reflected 'Modal' (or most frequently occurring) input data," the "Expected Value" for each leasing unit was arrived at as being the "statistically most probable answer" in each case.

Along with a series of well prepared briefs, Union and BLM, have submitted extensive affidavits from experts in geothermal development and economics. Union's contention that the BLM decision is arbitrary and capricious is essentially two-pronged. Union insists first that the GUESS Model C formula is inappropriate for geothermal value analysis, and second that the data upon which the analysis is based is too uncertain to provide a useful foundation for the disputed evaluation.

On the first point, appellant argues that the GUESS procedure is inappropriate for geothermal resource evaluations since it is borrowed from the oil and gas context, in which substances have an undisputed inherent value, in comparison with the lack of proved inherent value of hot brine solutions in geothermal systems. A USGS expert responds "that all the different models of the GUESS system were developed by private industry for purposes of pre-lease geothermal evaluation * * *." He supports this statement with specific examples of variables incorporated into the GUESS models, such as "enthalpy" and "efficiency," which would have no application for oil and gas evaluation.

On the second point, Union urges that:

Considering the lack of presale data, the evaluations, derived by the U.S.G.S. on tracts # 35, 40 and 41 within the Borax Lake sale following the Geological Survey's methodology, are irrational or are, at least, not reasoned and are unsupported or are contrary to the substantial evidence in the record.

There was too much uncertainty in the available data to justify the sophisticated analysis used by the U.S.G.S. and this analysis is defective because it failed to account for such uncertainty.

In support of such assertions, Union has raised numerous specific objections, among which the more significant are that deep drilling for temperature gradient study has been inadequate; that the audiomagnetotelluric surface testing performed to determine the area and depth of the geothermal resource is not credible; that the estimated temperature of the geothermal fluid is not in a range in which economic recovery under existing technology can be made; that the quality of the fluid is unknown, which means that costs to be incurred from scaling and corrosion problems cannot be foreseen; that the USGS estimate of the porosity of the fluid-bearing rock is insufficient; that the reservoir volume has not been accurately judged, especially since fluid location may be fault-related, as in a Nevada-type system; that the USGS has underapproximated exploration costs and other technical impediments to success; and that the Government's estimate of the GUESS Model C MILLS factor—which represents the sale price of the produced fluid less costs of production and separation—was arbitrary. Appellant also offers a substantial amount of information comparing the circumstances of the geothermal lease areas in issue with other

geothermal areas, and argues that by comparison the bids required by the Government in the instant case are out of line. Further, Union points out that "[it does] not know of any comparable geological area in the world that has demonstrated capability to support a commercial generating power plant." Finally, Union disputes the statistical analysis employed by USGS, arguing that "at the elementary stage of learning that exists in the geothermal industry we are not well equipped to develop statistical probabilities," that "any suggestion that the U.S.G.S., through the use of the Monte Carlo program, has statistically accounted for uncertainty in resource data for the purpose of determining lease value is absolutely false," and that USGS did not adequately consider the implications of the standard deviation in the USGS valuations. ^{3/}

Appellant raises serious questions. The USGS explanation of its review procedure, however, is well summarized in an affidavit from Timothy J. MacGillvray, a USGS geothermal economist:

[I]t has been statistically demonstrated that bidders within private industry oftentimes will offer only token bids on land for (presumably) speculative purposes. Those bids (which may be referred to as low "noise" bids) are prevalent not only within geothermal lease sales, but also within oil and gas lease sales. * * * Thus, to accept Mr. Bennett's position would mean acceptance of bids that are totally irregular and without merit, and would represent an abdication of any evaluational responsibilities of the USGS.

* * * * *

While the computer programs (identified as the General Uncertainty Economic Simulation System - or simply under the acronym "GUESS") serve as a useful tool of analysis for evaluating minimum bids in competitive lease sales, and can guide all committee members in the overall fair market value appraisal for a given area, it was the committee's final evaluation of all available data and their judgment as to the potential resource conditions in the Alvord that yielded the final report and appropriate minimum values for all tracts under examination. Indeed, various computer inputs and several different computer runs were used to properly account for the appropriate degree of uncertainty attached to the many variables which were considered in the computer analysis. Oftentimes successive computer iterations were required before the members of the

^{3/} As to the GUESS formula, Union refers to an adage used in the computer industry: "garbage in; garbage out."

committee were satisfied that all variables had been sufficiently studied and statistically appraised to ensure the broadest possible consideration. Geothermal tract evaluations (pre-lease) necessarily use estimates based on the best information available, whether or not actual geothermal deep exploration or any developments have taken place in the area of evaluation. In areas like the Alvord, where no deep drilling had been accomplished prior to that time we recognized in our analyses that the parameter values were not [unequivocal], but that does not mean that they were unsupported or incorrect, particularly in the absence of any conflicting data to that evaluated by the team. The parameters did represent our best interpretations of the existing data at that point in time. If, for example, no single absolute value was positively known (with a reasonably high degree of certainty), the computer programs were readily adapted (through the use of statistical probability distribution) to account for any degree of uncertainty.

* * * * *

Consideration in the pre-lease sale time-frame was given to all statistical deviations on all tracts. Additional discussion and consideration was given to standard deviations after the sale in order that all committee members could reconsider the ranges of all parameters in light of the bidding history. In the Borax Lake case (C-3), p. 9-34 of the May 20, 1975 memorandum reflects not only the statistically expected value, but also shows the statistical standard deviation of that value given the ranges of all variables included within that analysis.

This table shows that there is a probability that an economic loss would be sustained if development occurred on this tract. The probability however is not "very large" (as Mr. Lindwall in his Affidavit avers) but is only about 30%, while the probability of success (i.e., making of profit) is considerably higher (70%).

The model "C" formula (as noted in our memo to Acting Field Solicitor, dated 15 September 1975, p. 2) accounts for each of the above-listed variables by determining a risked-present value for that specific tract under analysis. It is this PVRISK value that is then incorporated into our written analysis if any [,] only if each committee member is satisfied that any and all variables for which he is responsible have been satisfactorily addressed. As noted previously, any and all variables may be statistically Monte Carlo'd over the relevant range thereby accounting for any degree of uncertainty.

In addition, the Government has introduced its own studies of comparisons with values established for other geothermal tracts, some of which Union filed bids on, and concludes that the comparisons do not indicate the evaluations in issue here are out of order.

This case involves a great deal of complex geological and statistical evidence. The experts have addressed each other's allegations, and have arrived at opposite conclusions. While the evidence submitted by Union does raise questions as to the sophisticated GUESS formula, the conclusions of the USGS are supportable by the record. As the Board stated in Getty Oil Co., *supra*, at 273-74:

The Secretary (or his delegate) has not been required to show that a bid is inadequate, unreasonable, or lacking in good faith in order to exercise his discretion in determining whether a bid should be accepted or rejected. * * * Kerr-McGee Corporation, 6 IBLA 108 (1972), sustained sub nom. KerrMcGee Corp. v. Morton, 527 F.2d 838 (D.C. Cir. 1975); Humble Oil & Refining Co., 4 IBLA 72 (1971); Humble Oil & Refining Co., A-30906 (December 5, 1967); Pan American Petroleum Corp., A-29510 (August 13, 1963).

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The Geological Survey is the Secretary's technical expert in matters concerning geologic evaluations, and the Secretary is entitled to rely on its reasoned analysis. ARKLA Exploration Co., 25 IBLA 220 (1976); see also Clear Creek Inn Corporation, 7 IBLA 200, 213-214 (1972). Where those officials who made the recommendation to reject the bid were duly authorized to do so by the Director of the Geological Survey, the BLM properly accepted and acted upon the advice of the Survey.

Pre-lease evaluation of geothermal resources is not a matter of engineering certainty. Indeed, as admitted by USGS, the information upon which the evaluations were made was not exhaustive, but did represent the best data available. We have no doubt that greater accuracy might have been obtained had the USGS embarked upon a more ambitious—and expensive – program of deep testing and engineering development before the Department solicited bids on the tracts in issue. This is not required and there has been no showing that it would be in the public interest. ^{4/}

^{4/} We note that Union has not introduced any geological evidence which it might have derived through its own program of drilling and other forms of testing on the tracts, and which might have generated data of greater accuracy than that employed by the USGS. Neither has Union alleged that it requested BLM permits to undertake such testing.

[3] With regard to appellant's request for a hearing, USGS has discretionary authority under the statute to reject a high bid without a hearing. To determine whether to accept or reject a bid involves a high degree of expert judgment. To assist in reaching its conclusions, USGS has utilized a variety of procedures. Union has offered little assistance toward refinement of alternative formulae or explained a procedure in which particular facts could be effectively utilized.

For the reasons expressed herein, it is therefore concluded that a hearing would not be sufficiently productive for such hearing to be considered as in the public interest.

We find that appellant has not sustained the difficult burden of proving that its bid represents fair market value. Union concedes that its own bids are based in large part on guesswork as to bids to be submitted by competitors; at the same time it seeks to deny USGS the opportunity to act on the most carefully considered opinions of its experts that higher bids may well be received at a later drawing. In no way has it been shown that the extensive effort made by USGS was arbitrary or capricious, or unsupported by competent evidence. Under these circumstances, if BLM chooses not to lease the lands on the terms offered by Union, BLM will not be required to do so.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.

Joseph W. Goss
Administrative Judge

We concur.

Anne Poindexter Lewis
Administrative Judge

James L. Burski
Administrative Judge

